



Dworshak Fisheries Complex

Monthly Activity Report



April Highlights

Dworshak

SST BY16 released -
2,421,096

SCS BY16 (Eggs) -
2,300,000

SST BY 17 (Eggs) - 835,000

SST BY 17 fry - 1,747,966

COHO BY 16 - 879,452

Kooskia

SCS BY 16 - 278,734

**APRIL is
Volunteer
Appreciation
Month**

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U.S. Fish & Wildlife Service, Region 1 Managers Message - Steve Rodgers



Steve Rodgers, Complex Manager Credit: Jill Olson/FWS

Winter is here and doesn't appear to be leaving any time soon. I thought April meant spring and mild weather? I've had a few white knuckle drives around town, like many of you. I realize all this snow and moisture is great for our fish, but that doesn't make me feel any better when I can't get up my driveway. Well...enough about the weather.

This month I want to recognize a critical work group here at Dworshak National Fish Hatchery. This group is just as important as our production, maintenance, administrative, research, outreach, fish health, and management folks. These employees are here when we need them, picking up the slack and filling in the gaps. They make a real difference for the fish, our visitors, and all of us that work here. They provide work products that might not be accomplished otherwise. They do so with friendly smiles and consistently positive attitudes. They care and are passionate about Dworshak and the service we provide to the public we serve. They are not motivated by money; rather they are motivated by the fish and what those fish mean to our community. These folks truly care...and it shows in their work and dedication to our program. This diverse group is comprised of kids still in school working alongside of seniors that retired from lengthy careers long ago. They are our

relatives and neighbors, and have become our friends. They come from all walks of life; and bring fresh perspectives, diverse experience, and new ideas to our workplace.

So who are these incredible employees? The amazing people that keep Dworshak on track are our volunteers. They donate their time to give tours, or help with spawning, or help in other ways. Like many others who give so much across the country, our volunteers are a treasured resource that deserves our respect and admiration. 'Volunteers' are just that... they are not compensated for their time. They don't get a paycheck for helping out. Furthermore, they don't seem to require recognition either. They just care; and lend a firm and confident hand when we need it.

At Dworshak, we are blessed with an army of volunteers that help meet the shared mission of the Nez Perce Tribe and Fish and Wildlife Service. Without them we would struggle to provide all that is asked of us. Some volunteers have helped only once or just a few times, but their contributions are important nonetheless. Others give of their time consistently, year after year, and are worth mentioning by name.

Tom Dougherty, Cynthia Tews, David Loranger, Karen Loranger, Rod Campbell, Alice Campbell, Steve Ullrich, Roger Myers, Cameron Olson, Nick Drobish, Mattie Drobish, Nathan Drobish, Butch Suor, Bruce Borgelt, and Theresa Elliott...thank you all for your time and effort. You make a difference. You ARE the difference. Without you we would struggle to get it all done, and we are very glad you are on the team! Thank you for what you've done and will continue to do on behalf of the fish and programs that comprise the Dworshak Fisheries Complex. You are truly needed and sincerely appreciated.

Volume 6 Issue 7

THANK YOU

Senior

VOLUNTEERS

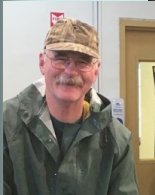
All photos by Jill Olson/FWS



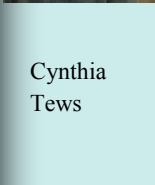
David
Loranger



Karen
Loranger



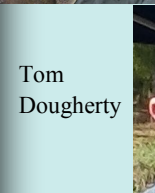
Rodney
Campbell



Cynthia
Tews



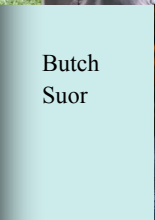
Roger
Myers



Tom
Dougherty



Alice
Campbell



Butch
Suor



Steve
Ullrich

Dworshak Hatchery Production - Izbicki, Sommer, Bisbee

Dworshak Stock - Spring Chinook Salmon (SCS)

Brood Year 2016 (BY16)- Brood year 2016 eggs hatched in January. At the end of April fry were on chilled water at an average of 37 degrees. We currently have approximately 2.3 M sac fry on station. Fry will remain in incubation on chilled water until they are ponded in early May. Low-head Oxygenators are being installed on A bank and baffles are being installed in four raceways to improve water quality and waste management. These projects will be completed prior to fry ponding.

Coho Salmon (COS)

Brood Year 2016 (BY 16)- On April 11, 2017, 892,338 BY16 Coho were ponded into one SYS III Burrows Pond (55) using reservoir water. The inventory of BY16 Coho on May 1st showed a total of 879,452 Clearwater stock Coho in Burrows Pond 55 in System III. The monthly percent mortality for Coho for the month was 1.44%. A total of 227 pounds Bio-Oregon BioVita starter #0 crum feed was fed for the month. Average Temperature - 45 degrees F. Average Dissolved Oxygen - 9.85 PPM. Monthly fish health samples were collected by Corrie Samson. See fish health report 17-172

PERSONNEL: 4/12 & 4/18 - Tui Moliga had a Lewiston High School senior completing his job shadow experience.

REPORTS: 4/30/17 - Mike Bisbee submitted Mitchell Act Progress report.

MEETINGS/TRAINING: NA

Dworshak Stock- Summer Steelhead (SST)

Brood Year 2016 (BY16)-

Remaining steelhead finished grow out in System I to minimize the impact of high TDG in the river. System 1 has the capacity to blend both river and reservoir water. The increased water discharge from Dworshak Dam continued through April. Gas levels were as high as 127% in the North Fork Clearwater River, but Hatchery degassing systems combined with reservoir water use in System I were able to bring TDG levels down to 101-102%. Fish health continued to examine SST daily for gas bubble damage. The remaining SST consisting of Red House and direct release groups were released on April 17, 2017. These fish released numbered 1,094,125.

Table 1. Final Release Summary SST BY 2016

BY 2016 Steelhead							
	SYS	Number	Wt	fpp	in.	mm	Dates
Early Direct Release*	1	280,541	31,987	8.8	6.9	175	3/21/2017-3/22/2017
Direct Rel	1	1,094,125	186,371	5.9	7.9	200	4/17/2017
	1	1,374,666	218,358	7.4	7.4	188	
Early Outplant	2	402,027	70,616	5.7	7.9	202	3/21/2017-3/23/2017
Early Direct Rel	2	250,141	45,498	5.5	8.0	204	3/22/2017
	2	652,168	116,114	5.6	8.0	203	
Early Direct Rel	3	394,262	76,546	5.2	8.2	209	3/23/2017
	3	394,262	76,546	5.2	8.2	209	
Outplant Total		402,027	70,616	5.7	7.9	202	
Direct Rel Total		2,019,069	340,402	6.4	7.8	197	
Total/Ave		2,421,096	411,018	5.9	7.9	200	

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Dworshak Hatchery Production

(Continued from page 2)

Dworshak Stock- Summer Steelhead (SST)

Brood Year 2017 (BY 17)-

Spawning finished in April with take 10 on April 11, 2017. By the end of April all fry were ready and moved from incubation to the nursery except takes 9 and 10. At the end of April there were 1,747,966 fry averaging 773 fpp in the nursery. Takes 9 and 10 remain in incubation and number approximately 835,000. Fry are being fed Bio-Vita Fry Feeds #0 to #2 crumble. Nursery water is being delivered through the Primary reservoir line and being heated to 54°F.

SUMMARY

Table 2. Total Production - Fish on Station April 30, 2017.

SP	BY	Location	Number	Wt (lbs)	FPP	L in	L mm
SCS BY 16	16	Incubation (Eggs)	2,300,000	-	-	-	-
Coho BY 16	16	Pond 55 System III	879,452	941.52	941.08	1.45	37
SST BY 17	17	Incubation (Eggs)	835,000	-	-	-	-
SST BY 17	17	Nursery	1,747,966	2,973	773	1.7	43
Total Fish/Fry on Station EOM			5,762,418				

Thank You to our Youth Volunteers

Photo Credit: Jill Olson/FWS



Mattie Drobish



Cameron Olson



Nick Drobish



Nathan Drobish



Credit: USFWS

The "Pond Scrubber" was transferred to Hagerman NFH.



Credit: USFWS

Project Leader Doug Nemeth assisting the NPT in sorting and collecting fin samples from over 500 adult lamprey held at the NPT hatchery.

Dworshak NFH Meetings, Training and Conferences - Drobish

On April 13th, Jeremy Sommer, Brian Devlin and Mark Drobish attended "Human Resources Law Seminar" through National Seminars Training in Lewiston, Idaho.

On April 18th, Dworshak Complex staff gathered for a lunchtime cook out to celebrate the successful release of fish with food and fellowship.

On April 19th, the Annual Valve Exercise was completed. This annual event includes the hatchery staff working with the Idaho Fish and Game staff at the Clearwater State Fish Hatchery to exercise all valves associated with the reservoir water supply lines and allows for internal inspection of the line at the hydro-station.

On April 20th, Management staff met with the U.S. Army Corps of Engineers staff to discuss the next steps of implementation of the Facility and Equipment Maintenance System. This system includes the preventative maintenance needs of the facility, projects and items needing repair.

Doug Threlloff, Regional Data Manager, visited the Dworshak Fisheries Complex on April 21st and met with the Fish and Wildlife Conservation staff and hatchery Assistant Managers, Jeremy Sommer and Adam Izbicki to discuss data management software, data collection and standardization from the regional perspective.

Kurt McCorkle, Electrician, attended the Heavy Equipment Training at Turnbull Refuge on April 24th and 25th.

On April 26th, Lucian Stewart, Tech Section Chief, U.S. Army Corps of Engineers along with Dworshak Electricians and Maintenance staff performed power outage simulations to mimic the power outage and associated problems that occurred November 5-18, 2016. Additional outage testing will occur on May 9th.

A safety video was shown for all staff on April 27th. The video covered "Respiratory Protection" including the use of respirators and overall health relative to the workplace and potential hazards.

On April 27th, Lisa Kusnierz, EPA toured the hatchery and then met to discuss changes to the permit that align with Dworshak Fish Hatchery operations. The hatchery is unable to meet the 90% removal rate for the off-line settling basin for the spring Chinook raceways. Lisa will pursue removing this requirement from the new permit. It was also agreed to consolidate some of the discharge points that contain the same water and essentially discharge in the same proximity.

DNFH Maintenance and Operations Activity Report - Koehler

Preventative Maintenance:

- Annual valve exercise for the reservoir water supply was completed in cooperation with the Clearwater SFH staff.

Maintenance and Projects:

- Contractor installed a water feature near the hatchery entrance.
- New lock sets were installed in Quarters #1 and #2.
- The battery in the electric Hyster forklift (Feed Building) was replaced.
- Brackets were installed in the raceways for the trial baffles for 4 raceways.
- A broken pipe for the nursery water supply was removed and capped.
- New tires and wheels were installed by Les Schwab on the Fish Distribution Truck.
- The Fish Distribution Tankers (3 of the 4) were inspected per Department of Transportation requirements.

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DNFH Maintenance and Operations Activity Report

(Continued from page 4)

- The “Pond Scrubber” was transferred to Hagerman NFH.
- Plans for routing new electrical lines to address a failed conductor supply power to Mechanical Building II, Electrical Shop, Raceway sump, and Biofilters for System II and III were developed to facilitate reliable power for these systems. This work will be completed in phases starting in late July/August.
- A concrete pad was poured (contractor) for the liquid oxygen bulk tank, fencing installed along with bollards according to Norco Incorporated specifications.
- Norco Inc. delivered and installed the bulk tank and installed all oxygen supply lines for the Low Head Oxygenation Units (LHO) for the 15 “A Bank” raceways.
- Water Management Technologies designed, constructed and shipped 15 LHOs along with cabinets and flow meters.

Idaho Fish and Wildlife Conservation Office - Michael Murray

An unexpected opportunity arose to partner with the NPT, IDFG and USFS to work on mussels. A ¼ mile of nearby Lolo Cr will be dewatered and placed into a new rehabilitated channel this summer. The channel that will be abandoned is purported to have “thousands” of mussels that will be relocated upstream of the work. This project presents a number of research opportunities the office intends on pursuing.

Assisted the NPT in sorting and collecting fin samples from over 500 adult lamprey held at the NPT hatchery.

Pollinator Pathway coordination continued along with pulling together outreach materials for pollinator projects to be completed in and around Salmon Idaho. Projects included the Staff the expansion of Salmon School Garden Pollinator Garden.

The process was started to hire Youth in the Great Outdoors Interns at Salmon Valley Stewardship/Lemhi Regional Land Trust and Salmon School District.

Efforts to restructure and improve the utility of hatchery evaluation annual reports began in earnest. This effort should also eliminate the backlog of reports once completed.

Work continued on standardizing the Snake River basin fall Chinook salmon redd count database and was forwarded to the IPC, NPT, and WDFW for further verification. Staff met with the Nez Perce regarding the hatchery fall Chinook salmon dispersal and fidelity study to discuss analytical issues. A quality control check of the NPT/WDFW hatchery fall Chinook salmon dispersal and fidelity study data was performed.

Work started on the fall Chinook reservoir predation manuscript with the USGS. A manuscript on density-dependent effects on growth and movement of juvenile Sockeye salmon in saltwater was submitted to the Marine Ecology Progress Series.

Work continued on the Lamprey Regional Implementation Plan and coded wire tag extractions.

Juvenile fall Chinook beach seining and PIT tagging continued in Hells Canyon with the USGS.

The PRAS fish started being released from Hagerman NFH on Monday. Staff from the office is onsite operating PIT Tag detection equipment during the release.

The PIT array at Kooskia NFH is having technical issues automatically sending information to the office. Staff began troubleshooting the PIT array and manually downloaded the stored PIT information. It was decided to move away from the automatic download until the technical issues are resolved.

Updated CWT release numbers for fish released in April. Coded wire tag extractions continued for the Kooskia 2016 spawning season.

Staff carried out size at release measurements for Chinook and Steelhead released from Dworshak NFH.

Analysis of the %TDG data which affected the hatchery last month was completed.



Credit: Jill Olson/FWS

Residents of Givens Hall enjoy fishing with their families.



Credit: Jill Olson/FWS

It wasn't all fishing!
Young lady uses beads to learn a story about the life cycle of trout..



Credit: Jill Olson/FWS

Nothing like catching trout! Staff and families of the Idaho Correctional Institute enjoyed a day of fishing at Tunnel Pond.

Idaho Fish Health Center - Blair

Dworshak NFH

Steelhead juveniles: System 1 steelhead were examined for gas bubbles beginning on March 17 and continuing two to three times per week through the month of April until they were released on April 17.

BY 17 steelhead: BY 17 steelhead were in the nursery on Dworshak reservoir water in April. The water has been very turbid. Monthly monitoring was conducted 28 April 2017.

Spring Chinook juveniles: BY15 Dworshak spring Chinook juveniles were emergency released on March 20th. BY16 spring Chinook were still in incubation during the month of April.

Steelhead Broodstock: Fish health samples were taken on three steelhead spawn days in April for Dworshak production.

Coho juveniles: Monthly monitoring was conducted 28 April 2017. Coho were on Dworshak reservoir water in April which was very turbid.

Kooskia NFH

Spring Chinook juveniles: No Chinook at Kooskia at this time.

Nez Perce Tribal Hatchery

BY 16 fall Chinook: A diagnostic exam was performed on April 10 for fall Chinook at NPTH in the nursery due to an increase in mortalities in some tanks. Bacterial Gill Disease was detected and recommendations were to treat with Chloramine-T.

Nez Perce Tribe Fall Chinook Acclimation Program:

The fall Chinook 60 fish pre-release exams from Pittsburgh Landing and Big Canyon Acclimation Sites were performed on April 6.

A monitoring exam was performed at Big Canyon Fall Chinook Acclimation Site on April 11 to check for gas bubbles. Bubbles were observed in the gills, lateral lines and fins.

Information and Education– reported by Jill Olson, and Kent Hills

Dworshak - Jill Olson

Facebook: Reach - 4,468 Engagements - 469 **Website:** Page Loads –16; Unique –12; First Time –6 ; Returning - 6

Visitors: We received 92 visitors from 8 states hosting 49 adults and 43 children (<18 years of age).

Tours: Five tours were given during the month of April. These tours included 19 adults and 67 school children.

Outreach: I & E had five outreach engagements in the month of April. Four of the events were classroom dissections of adult steelhead in area schools. The fifth event was a fishing day held at Tunnel Pond. It was arranged by the Idaho State Correctional facility in Orofino, Dworshak Fisheries Complex and the Nez Perce Tribe. The goal of the event was to provide an opportunity for Idaho Correctional Institution -Givens Hall inmates and their families, as well as staff and family of the institution, to fish and enjoy a day of relationship building. The project was a great success and we hope to continue this event annually.

Volunteer Hours: Four volunteers contributed 31.5 hours. The majority of the hours were contributed to projects involving outreach and environmental education.

Kooskia - Kent Hills

Visitors: There were 75 visitors to the hatchery during this month; this figure is compiled by staff. Steelhead fishermen are beginning to stop at the hatchery to check the trap.



Credit: Jill Olson/FWS

Learning is fun!! Idaho Youth ChalleNGe “Gems” and Dworshak Fisheries Complex volunteers take time out of a fish anatomy lesson to pose with steelhead carcasses.



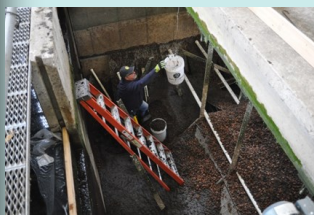
Credit: Kooskia NFH/NPT

Work was started on bay three the first of the month because it had six broken braces and the front corner was sagging and had broken the air cleaning line under the media.



Credit: Kooskia NFH/NPT

Hatchery staff is replacing the aluminum support braces in the three bio filter cells. At the first of the month we replaced all the angle braces in bay one.



Credit: Kooskia NFH/NPT

All the media on the end of the bay had to be removed and new support braces were made to hold the media platform.

Kooskia National Fish Hatchery - Hills

This activity report is implemented by the Tribal Fish Hatchery Manager, Kent Hills. All information in this report was collected and or performed by the hatchery staff during the preceding month.

Under SRBA and the Clearwater Annual Operating Plan, the Tribe, Service and Idaho Fish & Game have agreed to implement other fish production actions related to KNFH mitigation. Reports will include additional information about other species reared, processed and released in relation to KNFH operations.

Kooskia Chinook Brood Year 2016

We had BY16 Kooskia fry that survived the March 17 power failure. Total Kooskia fish on hand the end of the month was, 15,263, mortality was 27 and the fish averaged 164 fish per pound. The Clearwater Fish Hatchery transferred 263,739 fry on April 24 and 25 to Kooskia. Mortality was 288 fry, leaving us at the end of the month with 263,451 Clearwater fry on station. Average fish per pound was 250. Total fry on station is 278,734, they are 2.40 inches (61mm), with mortality of 315. They are on well water at 55 degrees. The fish consumed 121 pounds of Bio Oregon for the month.

Coho BY15

The remaining 290,000 Coho were released into Clear Creek.

Kooskia Adult Trap Operations:

Trap was closed all month.

Kooskia Bio Filter Maintenance:

Hatchery staff is replacing the aluminum support braces in the three bio filter cells. At the first of the month we replaced all the angle braces in bay one. Several had broken over the winter. To replace, a hole about ten feet in diameter and four feet deep is shoveled out of the media around each brace. The braces are deteriorating because of electrolysis caused by the stainless steel bolts and the aluminum brace with the flow of the water through the system. We will need this fall and winter to replace the straight braces in bay 1. Work was started on bay three the first of the month because it had six broken braces and the front corner was sagging and had broken the air cleaning line under the media. We had just finished pumping the water out of the bay and the maintenance personnel were going to start replacing the braces at the ladder opening of the bay after wood support braces were put in place underneath to support the system and the workers. This didn't happen. One person got in the bay on top of the media on the end with the broken braces and started moving media and then the whole end of the media platform collapsed and fell 4 and a half feet into the bottom of the bay. Fortunately no one was hurt. This dumped all the media, bracing, and grating down into the bottom of the bay. All the media on the end of the bay had to be removed and new support braces were made to hold the media platform. Upon removing the media, it was found that the grating the media sits on is starting to disintegrate

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Kooskia NFH - Hills

(Continued from page 8)

Kooskia Bio Filter Maintenance continued

as well. We will replace it at the same time. We hope to have bay three of the bio filter up and running by the end of May.

Maintenance & Operations:

Apr 03: Staff is continuing to replace the support struts in the Bio-filter.

Apr 04: The remaining 290,000 Coho were released into Clear Creek.

Apr 05: The Obermeyer weir was opened and the creek was allowed to bypass the hatchery. All fish using the creek water have been released. Work on bay 1 in the Bio-filter has been completed, work on Bay 3 will begin.

Apr 07: While staff was moving the media around to access the strut bolts in Bay 3 the struts failed causing the media platform to fall to the bottom of the bay.

Apr 10: Work began repairing bay 3 in bio-filter.

Apr 12: Kayla was reassigned to Kooskia Hatchery, Rob Bone was reassigned to Dworshak.

Apr 24: The Clearwater State Hatchery transported Chinook Brood Year 2016 to the Kooskia Hatchery. We filled 6 vats at approximately 25,000 fish per tank and will continue filling vats tomorrow afternoon. The dissolved oxygen for the fish after transport has been in the 7.0 to 8.0 range in the vats.

Apr 25: Kooskia Hatchery received more fish from Clearwater Hatchery, bringing a total of 263,739 fish for rearing purposes.

Visitors/Partners: There were 75 visitors to the hatchery during this month; this figure is compiled by staff.

Kooskia NFH Training and Conferences:

Apr 12: Snake Basin meeting in Lewiston.



Dworshak Complex photo taken February, 2017. Photo Credit: Jill Olson, FWS

Staff List

Dworshak Fisheries Complex Management:

Steve Rodgers, Dworshak Fisheries Complex Manager

Mark Drobish, Dworshak NFH Manager

Adam Izbicki (FWS) & Jeremy Sommer (NPT)

Dworshak NFH Assistant Hatchery Managers

Mike Tuell, SRBA Coordinator

Scott Koehler, Dworshak NFH Maintenance Supervisor

Doug Nemeth, Project Leader, Idaho Fish and Wildlife Conservation Office

Mike Faler, Aquatic Conservation Lead

Dr. William Conner, Fall Chinook Research Lead

VACANT- Fish Production M&E Lead

Kent Hills, Kooskia NFH Manager

Vacant, Kooskia NFH Maintenance Supervisor

Dworshak NFH Production: Angela Feldmann, Tom Tighe, Rob Bohn, Wayne Hamilton, Mike Bisbee, Tui Moliga, Steve Coomer, Carter Lopez, Jayden Hudson, Steve Jeffers, Jayson Thompson, Aidan Frye, Jeremy Pike, Levi Carson, Dan Peters

Administration: Brian Devlin-Administrative Officer, James Pritchard- Budget Technician

Dworshak NFH Maintenance:

Terry Weeks, Rick King, Rob Kellar, James Oatman, James Paddelty, Melissa Wright, Kurt McCorkle

Idaho Fish and Wildlife Conservation Office:

Aaron Garcia, Frank Mullins, Jody Brostrom, Chris Griffith, Mike Murray

Complex Information and Education: Jill Olson

Kooskia NFH: Kenny Simpson, Kayla Warden